

## ABSTRACT OF THE DISCLOSURE

A device for measuring electrical energy in an electric circuit is disclosed. The device includes at least one sensor coupled with the electric circuit and operative to sense at least one electrical parameter in the electric circuit and generate at least one analog signal indicative thereof. The device also includes at least one analog to digital converter coupled with the at least one sensor and operative to convert the at least one analog signal to at least one digital sample and a time synchronization receiver operative to generate a time synchronization signal. Further, the device includes a processor coupled with the at least one analog to digital converter and the time synchronization receiver, the processor operative to alter a timing clock signal based on the time synchronization signal.